PARKHILL (C.)

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Excision of the Cecum; Total Exclusion of a Portion of the Ileum (Entero-Apokleisis).

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FROM

THE MEDICAL NEWS,

October 12, 1895.

[Reprinted from THE MEDICAL NEWS, October 12, 1895.]

A CASE OF ILEOCOLOSTOMY BY THE MURPHY METHOD; EXCISION OF THE CECUM; TOTAL EXCLUSION OF A PORTION OF THE ILEUM (ENTERO-APOKLEISIS).

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AT the beginning of my last term of service in the Arapahoe County Hospital I found in the wards a patient, E. B., twenty years old, who had been admitted August 4, 1894, to the service of one of my colleagues. He was suffering at that time with an appendicitis, with a perityphlitic abscess. He was operated upon for the removal of the appendix and the evacuation of the pus. Within a few days the walls of the cecum gave way in several places, and a fecal fistula was formed. My colleague operated upon him subsequently, with a view to closing the cecal openings by sutures, but was unsuccessful.

When the man came under my care, on September 1, 1894, he was greatly emaciated, and suffered much pain. There were four large fistulæ in the outer wall of the cecum, through which all the fecal matter was discharged. The opening in the abdominal wall had a length of about five inches and a width of two-and-half, and was suppurating profusely. I was convinced that any further

attempt to close the fistulæ by sutures would fail, so I decided to effect an anastomosis between the ileum and the colon, in order to shut off the cecum from the fecal circulation.

I operated on September 14, 1894. My incision began about an inch below the cartilage of the ninth rib, extending downward and slightly inward for six inches, in a line midway between the margin of the fistulous opening and the linea alba. When the section of the abdominal wall had been made, exploration disclosed the fact that the suppurating focus about the head of the cecum had been very perfectly circumscribed by loops of intestine matted together by adhesions.

With comparatively little difficulty I discovered, as I thought, the terminal portion of the ileum. This I cut across at a point about three fourths of an inch from what I believed to be the valve. Leaving a clamp on the short portion of the gut, I caried the other end upward, and by means of the largest size Murphy button made an end-to-side anastomosis with the beginning of the hepatic flexure of the colon. I then closed the end of the ileum left attached to the cecum below. I used first a continuous suture and then invaginated the line of union by a row of Lembert sutures. After a careful toilet of the peritoneum the abdominal wound was closed, the cecum was plugged with gauze, and the usual dressing applied.

In the patient's weak condition it was out of the question to think of excising the cecum at that time. In fact I was very doubtful when the patient was put on the table if he would survive an intestinal anastomosis. He rallied from the operation, however, very satisfactorily, showing almost no evidence of shock. His progress toward recovery was uninterrupted and exceedingly rapid. As it was impossible to weigh him before the operation I have no means of judging with accuracy as to his gain in weight, but my impression is that it was not less than a pound each day for a month.

On the eleventh day after the operation the sutures were removed from the abdominal wound, and this was found to be perfectly united. The cecum was kept plugged with gauze, notwithstanding which there was some discharge of fecal matter, although the main portion of the feces was passed naturally. The button was passed from the rectum on the thirteenth day. I was determined to see if nature would close the defect in the cecum and in the abdominal wall, and so had the patient discharged from the hospital on October 31st. At the end of a month he was readmitted, begging for a second operation. The fistula had contracted to about two-thirds of its original size, and there was still some regurgitation of fecal matter. The man's general health was excellent. On December 8th I operated a second time. Before beginning the second operation I passed my finger into the colon and examined the site of the anastomosis. I had used the largest size Murphy button in the set. I found that the opening was barely large enough to admit the end of my index-finger as far as the base of the nail. On measuring my finger at that point I find that it has a circumference of exactly two inches, while the button used had a circumference of three-and-a-quarter inches.

Entering at the fistulous opening I dissected the large bowel loose from its attachments, and cut it across somewhat above the junction of the cecum with the ascending colon. I then closed the colon by a continuous suture, reinforced by a series of Lembert sutures. Then taking up the cecum, I dissected it downward to the ileo-cecal valve. On passing my finger through the valve I discovered that in my first operation I had not cut the ileum at its junction with the cecum as I had believed. It was impossible to reach the end of the segment. It at once became evident to me that nature in her attempt to circumscribe the original infected area about the head of the cecum had matted together the small intestines in such a way that what I believed to be the extern a

portion of the ileum was only the point where it had entered into the formation of this wall. How much of it was involved I had no means of determining. On observing this condition I excised the cecum at the valve. I then proceeded to close the ileum by the same method that I had used for its other end, thus excluding that portion of the gut that lay between the point where I had cut it in the original operation and the ileo-cecal valve. I did not attempt to bring together the edges of the abdominal wound, but packed it with gauze and left nature to fill it up. The patient made an excellent recovery, and at the present time (January 20, 1895) is perfectly well.

This case presents several points of interest. It adds another to the list of end-to-side anastomoses by the Murphy method. I cannot speak too highly of the mechanical ingenuity of this button, and the facility with which an anastomosis can be made with it. In fact, I believe that it is the only possible method that I could have used in this case, owing to the patient's extremely weak and depressed condition at the time of the first operation. Any prolonged procedure would unquestionably have terminated his life on the table. By this method, however, the anastomosis was effected in a very few minutes, and the operation speedily finished.

So far as I know, this is the first opportunity in which the amount of contraction at the point of anastomosis has ever been observed in the living subject. Forty-two days had intervened between the time that the button was passed and the time of the second operation, and as the opening was found to have a circumference of but two inches instead of three-and-a-quarter, which it necessarily must have had at the time that the button was passed, this brings up a very interesting question as to whether this contraction will continue and where it will end.

The case also furnishes an addition to the 104 cases

of excision of the cecum tabulated by Magill.[1] The article of Dr. Magill is a most exhaustive and admirable one, but I am at a loss to understand why he should apply the term "resection" to an "excision of the cecum." It is certainly a misnomer to speak of a primary removal of the cecum as "resection."

The second operation, I believe, furnishes the first example of a total exclusion of the portion of the intestine which has been performed in America.

In the *Centralblatt für Chirurgie*, 1894, No. 49, Obalinski discusses the case of total exclusion operated on by von Baracz, and reports two cases of his own. One of his patients suffered from a fecal fistula. The operation disclosed the fact that it communicated with a tuberculous appendix and cecum. Both of these structures were excised. The surgeon was not able to approximate the ileum to the ascending colon on account of the shortness of its mesentery; so he cut the colon at the junction of the hepatic flexure with the transverse portion and made an end-to-end anastomosis between the transverse colon and the ileum. He then sutured both ends of the ascending colon, totally excluding it. In the other case he first effected a partial exclusion by fastening both ends of the excluded gut in the abdominal wound. This gave rise to so much inconvenience from the discharge of mucus from the fistula that he operated a second time, making a total exclusion. Both of the patients made good recoveries. Obalinski contends that to Polish surgeons is due the credit for the first two cases of total exclusion of a portion of the intestinal tract, and points out the fact that this operation has been confused with that of partial exclusion and simple excision. He cites Dr. Carmalt, of New Haven,

[1] William S. Magill: "Resection of the Ileocecal Coil of the Intestine, its Indications, Results, and Modus Operandi, with a Review of 102 Cases and Two Yet Unpublished." Annals of Surgery, December, 1894.

as claiming in his article published in the *International Clinics* for October, 1891, to have made a total exclusion. Dr. Carmalt's case was simply an excision of he cecum, with an end-to-end anastomosis between the ileum and the ascending colon. He made no claim to having done an exclusion.

Obalinski further objects to the term exclusion as applied to this operation, and proposes in its stead "elimination." There can be no doubt that some confusion has arisen regarding the exact character of this operation through the indefinite term "exclusion," but to my mind "elimination" is no more definite. There is need of a term that will signify a shutting up of both ends of a portion of the intestine, thereby cutting it off from the fecal circulation and yet leaving it in place. I would propose for this operation the name "entero-apokleisis." This word in the Greek defines exactly the operation that is done, and if used the operation could be mistaken for nothing else.

The invariably good results that have followed this operation of entero-apokleisis show that it has a distinct and important position in modern abdominal surgery. It makes it possible to operate successfully on cases that without it would either be left with an artificial anus and its attendant horrors, or to die of the original disease. While on first thought it seems rather a rash procedure, its results show that it is not only justifiable but also to be commended.